

WHAT IS CLAIMED IS:

Claims

- 1 1. A method for authorizing an access to a table of address correspondence
2 between a multitask CPU and at least one memory containing several programs, consisting of
3 calculating, on each task change of the CPU, a signature of at least part of the program
4 instruction lines, and checking the conformity of this signature with a signature recorded upon
5 previous execution of the involved program, each signature being associated with a program
6 identifier.
- 1 2. The method of claim 1, wherein said signature is calculated by the
2 implementation of a Hash function.
- 1 3. The method of claim 1, wherein said memory is a RAM in which are loaded
2 program lines from a mass storage.
- 1 4. A processor of multitask execution of several programs, exploiting a table of
2 correspondence between virtual addresses of the lines of the different programs and physical
3 addresses of these lines in at least one memory, each correspondence being associated with
4 an identifier of the involved program, comprising means for calculating a current signature
5 based on at least part of the program lines in said memory, and means for comparing this
6 signature with the identifier of the program stored in the correspondence table.
- 1 5. The processor of claim 4, wherein the identity of the signature and of the
2 program identifier allows the CPU to execute the instruction of the involved program.
- 1 6. A method of executing an instruction, comprising:
2 generating at a first time a first data set corresponding to a portion of the
3 instruction;
4 determining if the first data set has a predetermined relationship to a second
5 data set; and
6 authorizing execution of the instruction if the first data set has the predetermined
7 relationship to the second data set.
- 1 7. The method of claim 6 wherein the relationship comprises the first and second
2 data sets being identical.

1 8. The method of claim 6 wherein the second data set corresponds to the portion
2 of the instruction.

1 9. The method of claim 6, further comprising generating the second data set at a
2 second time prior to the first time.

1 10. The method of claim 6, further comprising executing the instruction at a second
2 time prior to the first time.

1 11. The method of claim 6 wherein generating comprises reading the portion from
2 mass storage.

1 12. An apparatus for authorizing execution of an instruction, comprising:
2 a generator operable to generate a first data set corresponding to a portion of
3 the instruction; and
4 an analyzer operable to determine if the first data set has a predetermined
5 authorizing relationship to a second data set, the analyzer further operable to authorize
6 execution of the instruction if the first data set has the predetermined relationship to the second
7 data set.

1 13. The apparatus of claim 12 wherein the analyzer is further operable to generate
2 an authorizing signal if the first data set has the relationship.

1 14. An electronic system comprising:
2 an apparatus for authorizing execution of an instruction, comprising:
3 a generator operable to generate a first data set corresponding to a portion of
4 the instruction; and
5 an analyzer operable to determine if the first data set has a predetermined
6 authorizing relationship to a second data set.

1 15. An article of manufacture, comprising:
2 a machine-readable medium having instructions stored thereon to:
3 generate at a first time a first data set corresponding to a portion of an
4 instruction;
5 determine if the first data set has a predetermined relationship to a second data
6 set; and

7 authorize execution of the instruction if the first data set has the relationship.

1 16. An apparatus, comprising:

2 means for generating at a first time a first data set corresponding to a portion of
3 an instruction;

4 means for determining if the first data set has a predetermined relationship to a
5 second data set; and

6 means for authorizing execution of the instruction if the first data set has the
7 predetermined relationship.

1 17. An apparatus for executing an instruction, comprising:

2 a generator operable to generate a first data set corresponding to a portion of
3 the instruction;

4 an analyzer operable to determine if the first data set has a predetermined
5 authorizing relationship to a second data set; and

6 a processor operable to execute the instruction if the first data set has the
7 predetermined relationship to the second data set.